

## **2.0 ALTERNATIVES**

### **2.1 INTRODUCTION**

The purpose of this chapter is to present the alternatives that are being considered for the Reach 11 project. There is also a discussion regarding alternatives considered but eliminated from further study.

### **2.2 PROCESS**

The process for developing, considering, and selecting a preferred recreation master plan followed three general phases: the Pre-Design and Scoping Phase; Design Phase; and EIS Preparation Phase. A summary of the activities associated with each phase follows.

#### **2.2.1 Phase 1 – Pre-Design and Scoping**

The planning process began with pre-design and scoping activities that were conducted from June 1998 through February 1999. The formal scoping period was from August 11, 1998 until November 9, 1998. Comments and concerns raised during scoping were reviewed and analyzed to identify substantive issues, which are reflected in the range of alternatives under consideration. (Letters received from agencies and organizations during scoping are provided in Appendix A.) In addition to scoping comments, Reclamation and the City, along with the consultants, conducted community interviews and public open houses to determine potential issues and recreation preferences.

The project team also reviewed project area information included in the following previous studies:

- Reclamation's Granite Reef Aqueduct Environmental Impact Statement
- Reclamation's Categorical Exclusion for the Phoenix Equestrian Center
- Reclamation's 56<sup>th</sup> and 64<sup>th</sup> Street Extensions Environmental Assessment

In addition to these documents, environmental and recreation data were gathered to identify opportunities and constraints associated with the site.

##### **2.2.1.1 Recreation Needs Assessment**

A recreation needs assessment was conducted to assist in identifying the high-demand activities in the area. Since 1985, the City has designated Reach 11 as a district park in the City of Phoenix General Plan, General Plan Peripheral Areas C and D (1987a), PRD Long-Range Plan (1988b), and North Land Use Plan (1996). Presently, there is one other large parcel of PRD-managed land in the general area, the Cave Buttes Dam Recreation Area. This is a 3,000-acre flood control facility owned and operated by the Flood Control District of Maricopa County (FCDMC) in cooperation with the U.S. Army Corps of Engineers (COE). It is managed by the PRD for recreation activities under a 1996 recreation agreement. A master planning process for the Cave Buttes Recreation area was initiated in fiscal year 2000-2001.

The proposed Sonoran Preserve, 15,000 acres of designated open space under the Arizona Preserve Initiative, is located in north Phoenix, much of it within proximity of Reach 11. The Sonoran Preserve will provide primarily passive recreation opportunities. Most active recreation needs in the area currently are served by neighborhood parks, community parks, and school playgrounds. Paradise Valley Park is an existing district park approximately 1 mile south of Reach 11 in the vicinity of 40<sup>th</sup> Street and Union Hills; however, the event field at this park has been eliminated due to the construction of SR 51.

District parks within the City generally are 100 or more acres in size, contain at least 10 program elements and serve residents located within a 5-mile radius. Standard facilities that have been established for district parks include the following:

- soccer fields
- volleyball courts
- basketball courts
- concession building
- basketball courts
- parking areas

District parks can include additional elements if user input indicates their need (City of Phoenix 1988a). Other elements that have been incorporated in district parks, which are location-specific elements and not necessarily found in all district parks, include the following:

- pools
- equestrian centers
- golf courses
- art sculptures
- skate parks
- lagoon/lakes
- recreation centers
- nature trails
- ranger stations
- amphitheaters
- trail head facilities

As part of the effort to determine the program elements that should be included in the new master plan, a recreation needs assessment was conducted in Fall 1998. The objectives of the assessment were to identify the available recreational opportunities in the study area, determine the existing recreational requirements for residents of the study area, and evaluate how population growth will affect the existing facilities and demands for future recreational facilities and uses in the year 2020 (Arizona Department of Economic Security 1998).

Data in the assessment are organized into three separate categories according to the type of the recreation activity: passive; active; and special event. Passive recreation activities can be enjoyed by an individual or small group with a minimal amount of physical exertion. Passive activities often have low or minimal effect on a site and do not require major facility design or site improvements. The objective of these activities is to experience physical and mental relaxation, obtain interpretative or educational value, or enjoy and experience a natural or casual setting. Active recreation activities typically are associated with recreational opportunities including organized sports or games. Usually these activities are pursued in a one-on-one or team structure with a competitive objective. These activities often require physical exertion, and the exercise component is one of the desired outcomes. The noise levels of these activities typically are greater than passive uses and, depending on the number of participants and spectators, noise levels can become relatively high. Most active recreation activities require constructed sport facilities such as courts, fields, or tracks. Finally, special event activities are defined as irregularly scheduled events with large space requirements.

Three maps were prepared depicting existing park sites, school sites, and golf courses (Figures 2-1, 2-2, and 2-3). The quantity and types of facilities located at each site and planned facilities were inventoried; park standards and public interest in various recreation facilities also were assessed as part of the study (refer to Section 3.8 for additional information on assessment methods). Matrices were developed to summarize the assessment of active recreation (Table 2-1), passive recreation (Table 2-2), and special event activities (Table 2-3).

Based upon these data, the recommended park facilities were determined for each type of use and current levels of demand at Reach 11. The level of demand was determined based upon the inventory, design guidelines, capacity ranking, and public interest. Facilities with existing capacity ranking below capacity, strong public interest, and minimal opposition were determined to be in high demand. Facilities at or below capacity with some public interest were determined to be in moderate demand. Facilities with lower deficiencies and some public interest were also determined to be in moderate demand. Facilities with no deficiencies and little or no public interest were classified as low demand and are not listed.

The results of the recreation needs assessment were presented to the Parks Board on November 19, 1998 and to the public at a community open house on February 10, 1999.

### **2.2.2 Phase 2 – Design**

During this phase (February 1999 through October 1999), alternative master plan concepts were developed based on compliance with district park standards, the recreation needs assessment, identification of issues, and evaluation of site opportunities and constraints determined in Phase 1. These concepts were reviewed, refined, and evaluated, and three conceptual master plan alternatives were presented to the public for review and comment. After taking into consideration all the comments received, PRD and Reclamation identified one of those plans to be recommended to the Parks Board for inclusion in the EIS as the Proposed Action.

### **2.2.3 Phase 3 – EIS Preparation**

The City and Reclamation presented the preferred master plan to the Parks Board for review and approval in September 1999. Following approval by the Parks Board, the Draft EIS (DEIS) was prepared indicating the preferred recreation master plan as the Proposed Action. The DEIS was distributed for public review and comment. After the close of the comment period, Reclamation and the City reviewed, analyzed, and developed responses to the comments received that addressed the adequacy of the DEIS. The comments and responses are presented in Appendix D of this FEIS. After a 30-day period once the FEIS is filed with the U.S. Environmental Protection Agency, Reclamation will issue a Record of Decision regarding the action. The Parks Board must approve the plan before any aspect of the master plan can be implemented.

## **2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY**

Two alternatives were analyzed but eliminated from further study because they do not meet the purpose and need of the project. These included (1) leaving Reach 11 in its current state, and (2) enhancing vegetation without developing any additional recreation facilities. These alternatives are described below.

### **2.3.1 Leave Reach 11 in Its Current State**

Many members of the public advocated that Reach 11 be maintained in its current state. This alternative differs from the No-Action Alternative, which envisions that development would occur as provided by the 1987 Reach 11 Master Plan (described in more detail below).

If left in its current state, no additional development of recreation facilities would be approved within Reach 11, now or in the future. This alternative would continue to provide limited recreation opportunities for equestrian users, hikers, bicyclists, and wildlife observers. The loop trail system would not be expanded beyond its current status, nor would an underpass be constructed near Tatum Boulevard. The existing underpass at 56<sup>th</sup> Street would remain and the underpass planned at 64<sup>th</sup> Street would be constructed as already approved (Reclamation 1997a). Construction of the ADOT interchange of Loop 101 and SR 51 would continue as approved (Reclamation 1997b). Any utility crossings already planned would be included.

This alternative would not meet the standards established for a district park due to deficiencies in the required number of program elements and standard facilities required by the City for a district park. This alternative would not provide the range of active, passive, and special event activities needed as identified in the recreation needs assessment. As a result, this alternative was eliminated from detailed study.

### **2.3.2 Habitat Enhancement Only – No Active Recreation Facilities**

Many members of the public suggested this option should be explored. This alternative would direct active recreation activities to locations other than Reach 11. Reach 11 itself would be designated for passive recreation only, and would include habitat enhancement to support

Figure 2-1

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Figure 2-2  
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Figure 2-3  
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**TABLE 2-1  
ACTIVE RECREATION ACTIVITIES**

Active Recreation Uses	Inventory <sup>1</sup>				Design Guidelines <sup>2</sup>		Capacity Ranking <sup>3</sup>	Public Information <sup>4</sup>		Notes
	Existing Unlighted	Existing Lighted	Proposed	Total	Guideline (No. of facilities/No. of people)	Deficiency		Public Interest	Public Opposition	
<b>Field Games</b>										
Baseball	0	0	0	0	1/4,000	84	Over capacity	Strong	Some	Opposition to lights
Softball	6	12	6	24	1/3,000	89	Over capacity	Strong	Some	Opposition to lights/high demand
Football	0	0	0	0	1/8,000	42	At capacity	Some	Little	None available; accommodated by schools
Soccer	16	12	4	32	1/8,000	10	Over capacity	Strong	Some	Opposition to light and space demands
Rugby/Field Hockey/ Lacrosse/Track	0	0	0	0	1/8,000	42	Not Available	Little	Little	None available
<b>Court Games</b>										
Basketball	2	15	3	20	1/2,000	148	At capacity	Some	Some	Some opposition to lights
Handball	0	0	0	0	1/5,000	67	At capacity	Some	Little	Interest for indoor facilities
Horseshoes	0	0	0	0	1/2,000	168	At capacity	Little	Little	Seasonal demands
Racquetball	0	0	0	0	1/5,000	67	Not Available	Little	Little	Interest for indoor facilities
Roller Hockey	0	0	0	0	Not documented	0	Not Available	Some	Some	Growing popularity
Shuffleboard	0	0	0	0	1/7,500	45	At capacity	Little	Little	Seasonal demand
Tennis	0	17	0	17	1/100	320	Below capacity	Little	Little	Accommodated by schools/clubs
Volleyball	4	16	8	28	1/5,000	40	At capacity	Some	Little	Sand volleyball preferred
<b>Specialty Activities</b>										
Archery	0	0	0	0	1/50,000	7	NA	Little	Some	Safety concerns
Bicycling (BMX/ Motocross)	0	0	0	0	Not documented	0	NA	Little	Little	Popular with youth
Exercise Trail	7	0	1	8	½ to 1 mile/10,000	0	Below capacity	Little	Little	Limited use of existing facilities
Frisbee Golf	1	0	0	1	Not documented	0	Below capacity	Little	Little	Limited use at available facilities
Golf (18-hole standard, less than \$40/round)	3	0	0	3	1/50,000	4	At capacity	Some	Some	Demand for affordable golf
Group Picnic Area (10- 100)	0	6	2	8	1/2,000	160	Over capacity	Strong	Little	Ramada frequently requested
Large Group Picnic Area (100-200)	1	0	0	1	Not documented	0	Over capacity	Some	Some	Traffic concerns
Inline Skating	0	0	2	2	Not documented	0	Below capacity	Strong	Little	Can use other hard surface trails
Skateboarding	0	0	0	0	Not documented	0	At capacity	Strong	Some	Growing demand for skate park facilities
<b>Equestrian</b>										
Arena Activities	1	1	0	2	Not documented	0	At capacity	Strong	Little	Additional facilities in progress at Reach 11
Polo	1	0	0	1	Not documented	0	Below capacity	Little	Little	Paradise Valley facility to be removed

Source: Recreation Needs Assessment, BRW 1998

Notes:

<sup>1</sup> Inventory includes the number of each type of facility.

<sup>2</sup> Design Guidelines are from minimum standards established by the National Recreation and Park Association (varies based on regional needs), indicates a guideline for the number of facilities per population unit. The deficiency indicates the demand additional to the existing facility based on the guideline and projected population figures for the year 2000.

<sup>3</sup> Capacity ranking interprets the deficiency based on the guidelines and/or public interest.

<sup>4</sup> Public interest levels are based on procedures outlined in Section 3.8 of Chapter 3.

**TABLE 2-2  
PASSIVE RECREATION ACTIVITIES**

	Inventory <sup>1</sup>			Design Guidelines <sup>2</sup> (Mile/No. of people)	Capacity Ranking <sup>3</sup>	Public Information <sup>4</sup>		Notes
	Designated Use Area	Non-Designated Use Area	Not Available			Public Interest	Public Opposition	
<b>Passive Recreation Activities</b>								
Bird Watching		X		Not documented	Below capacity	Some	Little	Primarily occurs at Reach 11 and preserve areas
Bicycle Trail Riding	X			1 mile/2,000	Below capacity	Strong	Some	Potential conflict with equestrians
Dog Exercising		X		Not documented	Below capacity	Strong	Little	Clean up after pets/leash requirements
Hiking	X			1 mile/4,000	Below capacity	Strong	Little	Casual use throughout system
Interpretive Program	X			1 mile/2,500	Below capacity	Strong	Little	Program lacks central facility
Interpretive Trail	X			1 mile/2,500	Below capacity	Strong	Little	One trail at Reach 11 is ADA <sup>5</sup> -accessible
Jogging (Running)	X			1 mile/2,000	Below capacity	Some	Little	Casual use throughout system
Larger Turf and Tree Open Space	X			Not documented	Over capacity	Strong	Little	Demand for large non-programmed areas
Picnicking	X			1 mile/125	Below capacity	Some	Little	Limited opportunities to picnic in a natural setting
Playgrounds	X			Not documented	Over capacity	Strong	Little	Convenience and security are important
Power Walking		X		Not documented	Not available	Some	Little	Measured track facilities

**TABLE 2-2  
PASSIVE RECREATION ACTIVITIES**

	Inventory <sup>1</sup>			Design Guidelines <sup>2</sup> (Mile/No. of people)	Capacity Ranking <sup>3</sup>	Public Information <sup>4</sup>		Notes
	Designated Use Area	Non-Designated Use Area	Not Available			Public Interest	Public Opposition	
<b>Passive Recreation Activities</b>								
Trail Riding (Equestrian)	X			1 mile/6,250	Below capacity	Strong	Some	Some conflict with other trail users/some clean up
Wildlife Observation		X		Not documented	Below capacity	Strong	Little	Primarily occurs at Reach 11 and preserve areas

Source: Recreation Needs Assessment, BRW 1998

Notes:

<sup>1</sup> Inventory includes the presence of each type of facility.

<sup>2</sup> Design Guidelines are from minimum standards established by the National Recreation and Park Association (varies based on regional needs), indicating a guideline for the number of facilities per population unit.

<sup>3</sup> Capacity ranking interprets the deficiency based on the guidelines and/or public interest.

<sup>4</sup> Public interest levels are based on procedures outlined in Section 3.8 of Chapter 3.

<sup>5</sup> ADA = Americans with Disabilities Act

**TABLE 2-3  
SPECIAL EVENT ACTIVITIES**

	Inventory <sup>1</sup>			Design Guidelines <sup>2</sup>	Capacity Ranking <sup>3</sup>	Public Information <sup>4</sup>		Notes
	Designated Use Area	Non-Designated Use Area	Not Available			Public Interest	Public Opposition	
<b>Special Event Activities</b>								
Ball Field Tournaments			X	Not documented	Over capacity	Strong	Some	Demand is high due to limited resources; traffic and lighting are a concern
Camping	X			Not documented	Below capacity	Little	Little	Primarily for group activities (e.g., Scouts)
Car Shows	X			Not documented	At capacity	Some	Some	Limited resources; conflict with other field users
Corporate Events	X			Not documented	At capacity	Strong	Little	Limited resources; conflict with other field users
Dog Shows	X			Not documented	At capacity	Some	Little	Limited resources; conflict with other field users
Fireworks Displays	X			Not documented	Over capacity	Strong	Some	Very popular at Paradise Valley; traffic issues
Soccer Tournaments	X			Not documented	Over capacity	Strong	Some	Demand is high due to limited resources; field lights are a concern

Source: Recreation Needs Assessment, BRW 1998

Notes:

<sup>1</sup> Inventory includes the presence of each type of facility.

<sup>2</sup> Design Guidelines are from minimum standards established by the National Recreation and Park Association (varies based on regional needs), indicating a guideline for the number of facilities per population unit.

<sup>3</sup> Capacity ranking interprets the deficiency based on the guidelines and/or public interest.

<sup>4</sup> Public interest levels are based on procedures outlined in Section 3.8 of Chapter 3.

additional vegetation and urban wildlife. Habitat enhancement would consist primarily of irrigation and planting to support and expand native vegetation communities. Recreational opportunities for equestrian users, hikers, bicyclists, or wildlife observers would still exist as they currently do, but opportunities for active recreation such as soccer fields, ball fields, large turf areas, playgrounds, and picnic areas would not be provided.

This alternative would not meet the standards established by the City for a district park because of deficiencies in the required number of program elements and standards. It would not provide the range of active, passive, and special event activities needed as identified in the recreation needs assessment. As a result, this alternative was eliminated from detailed study.

## **2.4 ALTERNATIVES STUDIED IN DETAIL**

Four alternatives for Reach 11 were identified, studied, compared, and assessed. This section addresses project alternatives studied in detail including the No-Action Alternative, Proposed Action, and two alternative master plans for Reach 11. This section summarizes the evaluation of these four alternatives.

To facilitate the discussion of the components of the alternatives, the park has been divided into six zones that are bounded by major features within Reach 11, particularly roadways. The locations of the zones are illustrated on Figure 2-4. The first zone (Zone 1) is the westernmost portion of Reach 11, between Cave Creek Road and the ADOT management area. Zone 2 is the 140-acre ADOT management area. Zone 3 is located between the ADOT management area and Tatum Boulevard, Zone 4 is bounded by Tatum Boulevard and 56<sup>th</sup> Street, and Zone 5 includes the land between 56<sup>th</sup> Street and the planned 64<sup>th</sup> Street extension. Zone 6 includes the easternmost section between 64<sup>th</sup> Street and Scottsdale Road. The alternatives discussed below are described in terms of the elements contained in each zone as well as connective or recurrent features.

Upon selection of a master plan, specific facility designs would be completed as funding becomes available. Preconstruction activities may include additional NEPA clearances if applicable, and acquisition of permits as required under Section 404 of the Clean Water Act or applicable air quality regulations. As construction proceeds, the construction engineer or inspector would continue to monitor activities to ensure compliance with mitigation measures or other regulatory requirements, or would initiate modifications as necessary. Regardless of the alternative selected, waters of the U.S. will be avoided.

Under any of the alternatives, the same type of construction activities would occur, but at different rates and over different sized areas and locations depending upon the alternative implemented. These activities would include but not be limited to the following: demolition and debris removal (loading and unloading material into trucks, scraping, bulldozing, and grading) site preparation (excavating and stockpiling material, and loading and unloading excavate

Figure 2-4  
8 1/2 x 11  
Color

material into/out of trucks); site construction (laying turf, constructing ball courts and buildings); and restoration and clean-up (landscaping, installation of irrigation facilities, and removal of waste materials). There would be construction equipment/vehicle traffic occurring on paved and unpaved roads, as well as associated noise. Wind and stormwater runoff erosion would occur in exposed areas (areas cleared but not restored or stabilized). It is anticipated that construction activities would be limited to daylight hours.

In areas where there is a potential for cultural resources to occur, a qualified archaeologist would monitor construction activities to ensure compliance with specific mitigation. It is anticipated that the total construction time for the recreation master plan could extend over a period of 2 to 10 years.

### **2.4.1 No-Action Alternative**

Under the No-Action Alternative, the 1987 recreation master plan would not be updated and revised to current district park standards, nor to reflect current and projected recreational needs of the area. The 1987 plan would continue to be implemented to the extent determined desirable, needed, and feasible, as funds become available.

The 1987 recreation master plan envisioned providing a mix of active and passive recreational opportunities. In general, this alternative divides Reach 11 in half at Tatum Boulevard, providing active recreation facilities in the western half and passive, nature-oriented activities in the eastern half.

Using the six zones created to facilitate the discussion of the components of the alternatives, the following is a description of developments that have been constructed, are under or approved for construction as well as the remaining 1987 recreation master plan elements that would be implemented under the No-Action Alternative.

Consistent with the original 1987 recreation master plan, features of an equestrian center (Arizona Horse Lovers' Park) were constructed following approval in May 1990. These are located in Zone 3. A multi-purpose trail loop system has been developed that consists of a series of natural surface trails throughout Reach 11, and one hard surface loop trail. The hard surface loop trail, referred to as the Reach 11 Barrier Free Nature Trail, is located in Zone 5 and is for use by persons with physical disabilities.

Two north-south street crossings through Reach 11 have been constructed—Tatum Boulevard and 56<sup>th</sup> Street. Another crossing, the 64<sup>th</sup> Street crossing, has been approved for construction (Reclamation 1997a). The 56<sup>th</sup> Street crossing divides Zones 4 and 5; the 64<sup>th</sup> Street crossing will divide Zones 5 and 6. In addition, the Loop 101/SR 51 interchange is under construction. This interchange constitutes the entire Zone 2.

Environmental clearances were conducted and separate approval provided for each of the facilities already constructed, under construction, or approved. Under the No-Action Alternative, the remainder of the recreational developments included in the 1987 master recreation plan would be considered and implemented on a case-by-case basis, as has occurred over the past 14 years. It is envisioned that a recreational development not envisioned in the 1987 master

recreation plan also could be proposed for implementation. NEPA compliance would be completed for each of these proposed developments as determined appropriate on a case-by-case basis.

The No-Action Alternative is illustrated on Figure 2-5. This figure also includes the facilities identified above that have been constructed, are under construction, or have been approved for construction.

Organized play fields, a motor bike training area, and associated parking would be located in Zone 1. A canine area and a picnic area also would be included here. Areas for youth activities and day camping that were to be constructed in Zone 2 would be eliminated or relocated, due to the presence of the Loop 101/SR 51 interchange. An education center that was to be constructed in Zones 2 and 3 would be reduced in size. The equestrian center would remain in Zone 3, with any remaining facilities planned for implementation being constructed. A parking area and maintenance building would be located on either side and adjacent to the existing Tatum Boulevard, which crosses Reach 11. Overnight camping and picnic areas would be located in Zone 4, along with a nature area consisting of a nature center, trails, and a water feature. Zones 5 and 6 would encompass a large wildlife area and a desert picnic area.

Multi-zone elements would include a loop trail for equestrians, bicyclists, and hikers that would follow the perimeter of the park, and a scenic drive that would run along the northern edge of the park to connect Cave Creek and Scottsdale roads. Irrigation ponds are also anticipated to satisfy turf irrigation requirements in compliance with current ordinances. Access to Reach 11 would occur from Cave Creek Road, Scottsdale Road, and Tatum Boulevard. Parking would be located adjacent to Tatum Boulevard and the sports fields in the westernmost zone. Due to the presence of the Loop 101/SR 51 interchange, it is envisioned that approximately 0.5 mile of the scenic drive through the ADOT management area (Zone 2) would be eliminated.

### **2.4.2 Proposed Action**

This alternative concept (Figure 2-6) was preferred by the City and approved by the Parks Board in September 1999, prompting its evaluation in the EIS as the Proposed Action. This preference is based upon the alternative's consideration of design guidelines established by the National Recreation and Parks Association, recreation deficiencies in the local area, local population projections, capacity, and indicators of public interest or opposition. The Proposed Action would provide a balanced set of uses (between active and passive recreation) and would address demands that likely are to be associated with projected residential development north of Reach 11, including the desire for open space, a natural-appearing character, and recreational facilities. The planning process through which this and the other alternatives were developed is described in Section 2.2.

Figure 2-5  
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Figure 2-6  
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The primary goals for the Proposed Action include the following:

- Conserve areas of diverse and dense vegetation and enhance other vegetative areas to add value to the overall setting.
- Accommodate the various recreational uses within separate zones to minimize conflict between less compatible uses.
- Accommodate passive recreational uses where the natural setting is least disturbed or otherwise conducive for passive uses.
- Concentrate active recreational uses to the extent possible while not directly impacting areas of xeroriparian vegetation or habitat.
- Provide a linked multi-use trail system throughout the entire length of Reach 11 and enable unimpeded pedestrian, bicyclist, and equestrian movement from zone to zone.

The overall concept of the plan is to accommodate the primary needs for active and passive recreation as determined in the recreation needs assessment, while conserving the areas of the site that have been identified as supporting the most diverse habitat. Areas of dense xeroriparian vegetation occurring within Reach 11 were mapped and facilities were sited to avoid these areas. Under the Proposed Action, Zone 1 would be a focal point for active recreation, and include 10 lighted ball and soccer fields, sports courts, picnic and open turf areas, and ancillary facilities such as restrooms. Recreational development in Zone 2 would be limited to a multi-use trail that follows the dike. Zone 3 would include equestrian facilities and a special event area. The provision of space for canine activities, an issue raised through public input, could be accommodated in the turfed special event area. A portion of that area could be allocated for an off-leash activity area. The eastern half of Reach 11 would emphasize passive recreation in conjunction with conserving xeroriparian habitat areas. Zone 4 would contain an interpretive habitat area with trailheads, an interpretive center, and a handicapped-accessible trail. Zone 5 is described as a habitat picnic area, and Zone 6 would be an open park area with picnic facilities and open turf areas.

An existing multi-use trail loop that extends throughout Reach 11 would be expanded. In addition, an underpass at Tatum Boulevard would be constructed to allow for movement between Zones 3 and 4 without crossing Tatum Boulevard. Each of the zones would include habitat enhancement for xeroriparian vegetation. This would consist primarily of irrigation and additional vegetative planting to maintain those vegetative communities. Zones 1, 3, 4, and 6 also would include irrigation ponds for the purpose of irrigating turf and/or areas of enhanced vegetation. Access to Reach 11 would occur from Cave Creek Road, Tatum Boulevard, and Scottsdale Road.

### **2.4.3 Alternative 1 (Passive Plan)**

The overall concept of this alternative plan (Figure 2-7) is to conserve the existing natural settings and incorporate needed recreational facilities in a manner that minimizes the impacts on those settings and meets minimum City district park standards. The plan emphasizes passive recreation more than the other plan alternatives.

The primary goals for Alternative 1 include the following:

- Conserve areas of diverse and xeroriparian vegetation and enhance other vegetative areas to add habitat value to the overall setting.
- Maintain the setting in a condition that protects the habitat of the site.
- Provide for passive recreational activities desired by the public and City.
- Minimally provide for active recreational uses to avoid disturbance to existing conditions.
- Maintain or enhance the visual character of the vegetative associations found on the site.
- Provide a linked multi-use trail system throughout the entire length of Reach 11 and enable unimpeded pedestrian, bicyclist, and equestrian movement from zone to zone.

Under Alternative 1, Zone 1 would be the active recreation-oriented zone and include four lighted ball/soccer fields, playgrounds, and open turf areas. Overall, these facilities would be provided at a lower number and density than in the Proposed Action. As in the Proposed Action, recreational development in Zone 2, the ADOT management area, would be limited to a multi-use trail that follows the dike. Zone 3 would include the equestrian arena and facilities. Zones 4 and 5 would be planned as natural habitat areas with trails; an interpretive center also would be included in Zone 4. Zone 6 would contain playgrounds and picnic areas in both a desert setting and with open turf.

As in the Proposed Action, the existing multi-use trail loop throughout Reach 11 would be expanded. Habitat enhancement is included similar to the Proposed Action, as well as the underpass at Tatum Boulevard and irrigation ponds in Zones 1, 3, 4, and 6. Access to Reach 11 would occur from Cave Creek Road, Tatum Boulevard, and Scottsdale Road.

#### **2.4.4 Alternative 2 (Active Plan)**

The overall concept of Alternative 2 (Figure 2-8) is to maximize active recreational use on the site. Xeroriparian vegetation and habitat areas would be considered for conservation; however, the development of recreational facilities would be given the highest priority, with an emphasis on large-group activities and tournament-style play.

The primary goals of Alternative 2 include the following:

- Maintain or enhance areas of the site (as practicable) that provide a high value due to the quality or density of existing vegetation.
- Provide unique opportunities for recreation that stand out as premier facilities and attract regional users.
- Provide for a large variety of complementary and compatible recreation uses while minimizing conflicts among dissimilar uses.

Figure 2-7  
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Figure 2-8  
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As under the Proposed Action, Zone 1 would be the focal point for active recreation under Alternative 2. Facilities provided would include 16 lighted soccer fields and 10 lighted ball fields, a recreation center, court games, open turf, and play areas. Zone 2 would remain the ADOT management area, with a multi-use trail following the dike. Zone 3 would be similar to the Proposed Action, but would maximize use of open space within the zone to support or complement the existing equestrian facilities. Like the Proposed Action, Zone 4 would include an interpretive habitat area with trailheads, an interpretive center, and a handicapped-accessible trail. Picnic areas also would be provided. The primary element in Zone 5 would be a municipal golf course; overnight camping facilities also would be provided in this zone. Zone 6 would include a tournament-style golf course and associated amenities.

This plan includes the multi-use trail loop expansion, as provided in the Proposed Action and Alternative 1, to allow for movement between zones and separation from other traffic. Habitat enhancement and the underpass under Tatum Boulevard are included in Alternative 2 similar to the Proposed Action and Alternative 1. Also similar to the other alternatives, irrigation ponds would be included in Zones 1, 3, 4, 5, and 6 for the purpose of irrigating turf and enhancing natural habitat.

## **2.5 RESULTS**

In evaluating the action alternatives considered in this EIS, the activities for each zone were discretely identified and illustrated. This allowed the environmental evaluation and comparison to focus on (1) unique activities in each plan and (2) the effects of different densities of recreational use, particularly in Zone 1. As shown on Figure 2-9, there are several common elements among the alternatives; in some cases, the primary distinction among alternatives is the density of activities planned for a given use. The predicted environmental consequences of the Proposed Action, action alternatives, and No-Action Alternative on the relevant resource categories are presented in summary in Table 2-4.

Environmental resource effects for each alternative are detailed in Chapter 3. Additional support information is located in Appendix B, which includes tables that identify the type and amount of disturbance and enhancement associated with each plan, by planned recreation activity and zone.

Figure 2-9  
8 1/2 x 11  
Color

**TABLE 2-4  
ENVIRONMENTAL COMPARISON OF ALTERNATIVES**

<b>Resources</b>	<b>No-Action Alternative</b>	<b>Proposed Action</b>	<b>Alternative 1</b>	<b>Alternative 2</b>
<b>Air Quality</b>	Particulate emissions associated with construction would be mitigated through the implementation of dust control measures. Currently unknown amounts of dust would be generated from long-term use of the motor bike training area. No long-term impacts from recreation-related traffic would occur.	Same as No-Action Alternative, except there would be no motor bike training area.	Same as Proposed Action.	Same as Proposed Action.
<b>Water Resources</b>				
Floodplain	No floodplain conflicts would occur. The detention basin would be maintained.	Same as No-Action Alternative.	Same as No-Action Alternative.	Same as No-Action Alternative.
Water Use	Approximately 195 acres of turf would be added, requiring an estimated 956 acre-feet of reclaimed water annually.	Approximately 172 acres of turf would be added, requiring an estimated 843 acre-feet of reclaimed water annually. Habitat enhancement would use additional irrigation water of a volume that is undetermined at this time.	Approximately 92 acres of turf would be added, requiring an estimated 451 acre-feet of reclaimed water annually. Habitat enhancement would use additional irrigation water of a volume that is undetermined at this time.	Approximately 227 acres of turf would be added, requiring an estimated 1,114 acre-feet of reclaimed water annually. Habitat enhancement would use additional irrigation water of a volume that is undetermined at this time.
Surface Runoff	Surface runoff would increase with the modification of approximately 100 acres of surface cover (i.e., displacement with hard surface structures). Washes would be avoided where practicable and short-term runoff impacts would be mitigated through control measures.	Surface runoff would increase with the modification of approximately 42 acres of surface cover (i.e., displacement with hard surface structures). Washes would be avoided where practicable and short-term runoff impacts would be mitigated through control measures.	Surface runoff would increase with the modification of approximately 9 acres of surface cover (i.e., displacement with hard surface structures). Washes would be avoided where practicable and short-term runoff impacts would be mitigated through control measures.	Surface runoff would increase with the modification of approximately 71 acres of surface cover (i.e., displacement with hard surface structures). Washes would be avoided where practicable and short-term runoff impacts would be mitigated through control measures.
Groundwater	Due to the depth to groundwater, it is highly unlikely that irrigation water would impact groundwater.	Same as No-Action Alternative.	Same as No-Action Alternative.	Same as No-Action Alternative.
<b>Earth Resources</b>	Soil erosion impacts are anticipated to be minimal and primarily short term during construction, and can be mitigated through erosion control measures.	Same as No-Action Alternative.	Same as No-Action Alternative.	Same as No-Action Alternative.
<b>Biological Resources</b>				
Impacts on xeroriparian vegetation and habitat	Up to approximately 177 acres of xeroriparian vegetation would be displaced.	Approximately 30 to 45 acres of xeroriparian vegetation would be displaced. Habitat enhancement measures would be implemented on 173 acres.	Approximately 30 t Habitat enhancement measures would be implemented on 173 acres.	Approximately 56 acres of xeroriparian vegetation would be displaced. Habitat enhancement measures would be implemented on approximately 126 acres.
Impacts on desertscrub	Approximately 422 acres would be displaced.	Approximately 255 acres would be displaced.	Approximately 137 acres would be displaced.	Approximately 326 acres would be displaced.
<b>Land Use</b>	Negligible impacts would occur on transportation. Current land uses (recreation activities) would be displaced minimally by preserving passive use areas and trail system. Compatible with other land use and transportation plans.	Development of an underpass at Tatum Boulevard would improve pedestrian circulation and safety, and eliminate horse trailers parking on a major thoroughfare.	Same as Proposed Action.	Similar to Proposed Action, with the exception of golf course additions in an area currently used for passive and dispersed use.
<b>Recreation Resources</b>	The No-Action Alternative would not meet PRD district park needs due to the population increase the area has experienced since the approval of the 1987 master plan.	The Proposed Action would provide a balanced set of passive and active recreation uses and would meet demands likely associated with development. The plan also meets current district park standards.	Alternative 1 would address all of the high-demand recreation needs identified in the recreation needs assessment and would meet district park standards. The active-use areas would be developed in a less dense manner than the Proposed Action to limit alterations to existing vegetation.	Alternative 2 would address all of the high-demand recreation needs identified in the recreation needs assessment and would meet district park standards. This alternative would provide a higher diversity of recreation opportunities due to the addition of golf and would provide the highest density of active sports facilities.
<b>Socioeconomic Resources</b>	The estimated cost of the continued implementation of the existing master plan is expected to be within the range of the costs for the action alternatives.	The estimated probable cost of implementation is approximately \$46,000,000.	The estimated probable cost of implementation is approximately \$33,000,000.	The estimated probable cost of implementation is approximately \$71,000,000.
<b>Visual Resources</b>				
Landscape Character	Changes to areas of highest landscape diversity could be substantial within the western portion of Reach 11 (up to approximately 177 acres).	Active facilities would be located in areas of lowest landscape diversity, and sensitive areas would be preserved to the extent practicable. The Proposed Action includes approximately 173 acres of enhancement (landscape modifications and native vegetation plantings).	Similar to the Proposed Action with a smaller area of minimal landscape diversity altered by active recreation use. Alternative 1 includes approximately 173 acres of enhancement (landscape modifications and native vegetation plantings).	The introduction of golf courses and additional activities would alter approximately 326 acres of desertscrub natural landscape. Depending on the design of the golf courses, the complexity of the landform and vegetation could increase. Alternative 2 includes approximately 126 acres of enhancement (landscape modifications and native vegetation plantings).

**TABLE 2-4  
ENVIRONMENTAL COMPARISON OF ALTERNATIVES**

<b>Resources</b>	<b>No-Action Alternative</b>	<b>Proposed Action</b>	<b>Alternative 1</b>	<b>Alternative 2</b>
Viewers	Passive recreation users would be affected by introduction of active facilities, and lighting of those facilities.	Similar to the No-Action Alternative; however, lighting of recreational facilities also would impact surrounding residences.	Same as Proposed Action.	Similar to Proposed Action; however, the introduction of golf courses would affect passive recreation users in the eastern portion of Reach 11.
Noise	Additional impacts on existing adjacent users expected to be minimal. Possible noise impact on future residential development if it is completed north of the equestrian center. Additional noise would be generated by the motor bike training area.	Same as No-Action Alternative, except there would not be a motor bike training area.	Same as Proposed Action.	Same as Proposed Action. Additional noise would be generated by any public address system associated with the golf course operation.
Cultural Resources	The old Rio Verde Canal is present in the eastern portion of Reach 11 (between 56 <sup>th</sup> Street and Scottsdale Road). However, the canal could be avoided during construction, thereby minimizing the potential for impacts on the historic resource.	Same as No-Action Alternative.	Same as No-Action Alternative.	Same as No-Action Alternative.